

**Amendments to the Specification:**

Material added is indicated by underlining. Material deleted is indicated by strikethrough.

**Please replace the paragraph on page 4 lines 7-18 with the following amended paragraph:**

In earlier studies the core epitope motif ELDKWA (SEQ. ID NO: 1) of 2F5 was integrated into different antigenic formats. The presentation of the ELDKWA-motif (SEQ ID NO: 1) on the haemagglutinin of influenza life virus was able to induce long lasting mucosal immune responses detected as 2F5-like specific IgA's in mouse faeces upon repeated immunization as a mucosal nasal spray [25]. However, quantities of IgA sufficient to prove *in vitro* neutralization potency could not be extracted from the faeces samples. Other forms of presenting the 2F5-core epitope for immunization such as fusion to the hepatitis B surface antigen expressed in yeast induced very high 2F5-like specific ELISA-titers in immunized BALB/c mice. However, the sera of those animals did not show any significant *in vitro* neutralization potency [36]. Peptide versions of the 2F5 epitope were also poorly immunogenic.

**Please replace the paragraph on page 14 lines 12-22 with the following amended paragraph:**

The ELISA competition assay was designated to describe the remaining binding capacity of 2F5 to the ELDKWA-epitope (SEQ ID NO: 1) after preincubation with Ab2. Ab2 3H6 inhibits or prevents the binding of 2F5 to the epitope depending on the concentrations applied. Fig. 1 describes the decline of 2F5 binding to the GGGLELDKWASL (SEQ ID NO. 13) precoated plate with increasing concentrations of 3H6. Even 50 ng/mL 3H6 could reduce the binding properties of 31 ng/mL 2F5 by more than one third (37% reduction of the OD) and 500 ng/mL resulted in 83% reduction of OD while the Ab2 6F8 did not diminish the binding of 2F5 to the epitope. Since the binding affinity of 2F5 to the GST- (glutathion S-transferase) ELDKWA (SEQ ID NO: 1)

fusion-protein is  $1.7 \times 10^7 \text{ M}^{-1}$  [33] the inhibition pattern of Ab2 3H6 was acceptable for further studies.

**Please replace the paragraph spanning page 14 lines 23-26 through page 15 lines 1-6 with the following amended paragraph:**

Similar results were obtained when replacing GGGLELDKWASL (SEQ ID NO: 13) with other synthetic peptides containing the ELDKWA (SEQ ID NO: 1) epitope or slightly modified, particularly functionally equivalent, variants thereof including functionally equivalent homologues or functionally equivalent variants occurring due to the degeneracy of the genetic code and/or due to variability of the HIV-1 viruses, the variants preferably being selected from the group consisting of ELDNWA (SEQ ID NO. 2), ELNKWA (SEQ ID NO. 3), LELDKWA (SEQ ID NO. 4), LELDNWA (SEQ ID NO. 5), LELNKWA (SEQ ID NO. 6), ELDKWA (SEQ ID NO. 7), ELDNWA (SEQ ID NO. 8), ELKNWA (SEQ ID NO. 9), LELDKWA (SEQ ID NO. 10), LELDNWA (SEQ ID NO. 11), LELNKWA (SEQ ID NO. 12).

**Please replace the paragraph on page 16 lines 9-22 with the following amended paragraph:**

Sequence of the variable regions of the heavy and light chains of antibody 3H6:

a) Amino acid sequence of the heavy chain variable region (vH) of anti-idiotypic antibody 3H6 (SEQ ID NO. 43 14):

GVQLQQSGPELVKTGASVKISCKASGYSFTDYFMHWVKQSHGKSLDWIGYINCYTGA  
TNYSQKFKGKATFTVDTSSNTAYMQFNSLTSEDSAVYYCARTSIGYGSSPPFPYWGQ  
GTLVTVSA

b) Amino acid sequence of the light chain variable region (vL) of anti-idiotypic antibody 3H6 (SEQ ID NO. 44 15):

ETTVTQSPASLSMSIGEKVTIRCITSTDIDDDMNWYQQKPGEPPRLLISDGNTLRPGVP  
SRFSSSGYGTDVFTIENMLSEDVADYYCLQSDNLPYTFGGGTNLEIK

**Please replace Table 2 on page 17 lines 11-13 with the following amended table:**

Table 2:

Sample	IgG titer [µg/mL]	Cut-off titer binding to gp 160	Cut-off titer binding to ELDKWA (SEQ ID NO: 1)	50% inhibition to 2F5/gp160 binding	Neutralizing capacity (IC <sub>50</sub> )
Serum 1	2271	1280	1280	1:60	-
Serum 2	3776	1280	1280	1:120	1:14
Serum 3	2603	1280	1280	1:120	1:12
Ascites 1	1127	320	320	1:15	-
Ascites 2	1958	640	640	1:15	-
Ascites 3	1442	320	320	1:15	-